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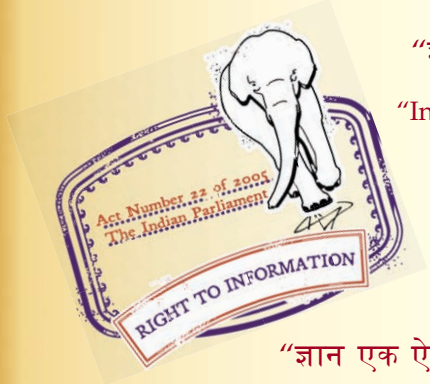
IS 2818-6 (1977): Indian Hessian, Part 6: 245 g/m2 at 16 Percent Contract Regain [TXD 3: Jute and Jute Products]



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"Knowledge is such a treasure which cannot be stolen"

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IS : 2818 (Part VI) - 1977

[Reaffirmed 2006)

Indian Standard

SPECIFICATION FOR INDIAN HESSIAN

PART VI 245 g/m² AT 16 PERCENT CONTRACT REGAIN

(First Reprint OCTOBER 1989)

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

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October 1977

Indian Standard

SPECIFICATION FOR INDIAN HESSIAN

PART VI 245 g/m² AT 16 PERCENT CONTRACT REGAIN

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Indian Standard

SPECIFICATION FOR INDIAN HESSIAN

PART VI 245 g/m² AT 16 PERCENT CONTRACT REGAIN

0. FOREWORD

0.1 This Indian Standard (Part VI) was adopted by the Indian Standards Institution on 5 July 1977, after the draft finalized by the Jute and Jute Products Sectional Committee had been approved by the Textile Division Council.

0.2 Other requirements regarding terminology, general requirements, packaging and marking, sampling and inspection, criteria for conformity of Indian hessian packed in bales or rolls shall be according to Part I of this standard.

0.3 This standard is based on Variety Cat. No. H2/8305-000165 of IND/TC/2121 (j) Cloths, jute, issued by the Ministry of Defence, Government of India.

0.3.1 Indian hessian (245 g/m²) covered in this standard has been specified also as basic cloth in the following specifications issued by the Ministry of Defence, Government of India for manufacturing sand bags:

IND/TC/2059 (d) Specification for sand bags, cuprammonium proofed

IND/TC/2060 (a) Specification for sand bags, unproofed

The corresponding Indian Standard Specification for these sand bags is under preparation.

0.4 The Government of India has decided to adopt International System of Units (SI Units) for use in the industry and trade in India. To familiarize the industry with SI Units, the basic SI Units as well as the recommended SI Units for use in the textile industry are given in Appendix A.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

*Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard (Part VI) prescribes constructional details and other particulars of 245 g/m²; 38 × 39 type of hessian of such widths as agreed to between the buyer and the seller.

2. SPECIFIC REQUIREMENTS

2.1 The hessian shall conform to the requirements laid down in Table 1.

2.2 The packed bales or rolls shall conform to the provisions laid down in Table 2.

2.3 The contract moisture regain shall be 16 percent.

TABLE 1 PARTICULARS OF HESSIAN

(*Clause* 2.1)

Sl No.	Characteristic	Requirement	Method of Test [*see* IS : 2818 (Part I) - 1971*]
(1)	(2)	(3)	(4)
i)	Mass, g/m²	$245 \begin{smallmatrix}+19\\-5\end{smallmatrix}$	B-6
ii)	Ends per decimetre	38 ± 2	B-7
iii)	Picks per decimetre	39 ± 2	
iv)	Width	As specified in the contract (*see* Note)	B-5
v)	Breaking load, kgf†, *Min*:		B-8
	a) Strip method (10 × 20 cm):		
	Warpway	92	
	Weftway	83	
	b) Grab method (2·5 × 7·6 cm):		
	Warpway	29	
	Weftway	27	

NOTE — If the specified width of hessian is 102 cm or below, the tolerance shall be $\begin{smallmatrix}+3\\-0\end{smallmatrix}$ cm and if it is above 102 cm, the tolerance shall be $\begin{smallmatrix}+3\\-0\end{smallmatrix}$ percent.

*Specification for Indian hessian: Part I General (*first revision*).

†1 kgf = 9·8 N approx.

TABLE 2 REQUIREMENTS OF PACKED BALES OR ROLLS

(*Clause* 2.2)

Sl. No.	Characteristic	Requirement	Method of Test [*see* IS : 2818 (Part I)-1971*]
(1)	(2)	(3)	(4)
i)	Moisture regain, permissible	17 percent, *Max*	B-2
ii)	Contract mass of a bale	(*See* Note 1)	—
iii)	Contract mass of a roll	Calculated on the basis of formula given in Note 1 below	—
iv)	Corrected net mass of a bale or roll (*see* Note 2)	Not less than contract mass	B-1
v)	Length of hessian per bale	1 829 m, *Min* unless otherwise specified	B-3
vi)	Length of hessian per roll	As specified in the contract	B-3
vii)	Permissible number of medium cuts and short pieces per bale	3 medium cuts, *Max* *or* 2 medium cuts and 1 short piece, *Max*	—
viii)	Number of joints in a roll and number of such joined rolls in a consignment (*see* Note 3)	As specified in the contract	—
ix)	Oil content on dry deoiled material basis (*see* Note 4)	6 percent, *Max*	B-9

NOTE 1 — Contract mass of a bale or roll is calculated as follows:

$$\text{Contract mass of a bale/roll in kg} = \frac{\text{Nominal width (cm)}}{100} \times \text{Marked length (m)} \times \frac{\text{Mass (g/m}^2\text{)}}{1\,000}$$

NOTE 2 — Corrected net mass of a bale or roll is calculated as follows:

$$\text{Corrected net mass} = \frac{\text{Net mass} \times (100 + \text{contract regain percent})}{100 + \text{average moisture regain percent}}$$

NOTE 3 — The seller shall indicate on the roll(s) the number of joints, if any.

NOTE 4 — The specified oil content value of 6 percent corresponds to an oil content of about 5 percent when determined on dry deoiled material plus 16 percent regain.

*Specification for Indian hessian: Part I General (*first revision*).

APPENDIX A

(*Clause* 0.4)

SI UNITS

TABLE 3 INTERNATIONAL SYSTEM OF UNITS

Base Units

QUANTITY	UNIT	SYMBOL
Length	metre	m
Mass	kilogram	kg
Time	second	s
Electric current	ampere	A
Thermodynamic temperature	kelvin	K
Luminous intensity	candela	cd
Amount of substance	mole	mol

Supplementary Units

QUANTITY	UNIT	SYMBOL
Plane angle	radian	rad
Solid angle	steradian	sr

Derived Unit

QUANTITY	UNIT	SYMBOL	CONVERSION
Force	newton	N	1 N=1 kg. 1m/s^2
Energy	joule	J	1 J=1 N.m
Power	watt	W	1 W=1 J/s
Flux	weber	Wb	1 Wb=1 V.s
Flux density	tesla	T	1 T=1 Wb/m^2
Frequency	hertz	Hz	1 Hz=1 c/s (s^{-1})
Electric conductance	siemens	S	1 S=1 A/V
Pressure, stress	pascal	Pa	1 Pa=1N/m^2

TABLE 4 RECOMMENDED SI UNITS FOR TEXTILES

Sl No.	Characteristic	SI Unit		Metric Unit		Application
		Unit	Abbreviation	Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1)	**Length**	Millimetre	mm	—	—	Fibres
		Millimetre, centimetre	mm, cm	—	—	Samples and test specimens (as appropriate)
		Metre	m	—	—	Yarns, ropes and cordages, fabrics
2)	**Width**	Millimetre	mm	—	—	Narrow fabrics
		Centimetre	cm	—	—	Other fabrics
		Millimetre, centimetre	mm, cm	—	—	Samples and test specimen (as appropriate)
		Centimetre, metre	cm, m	—	—	Carpets, druggets, durries (as appropriate)
3)	**Thickness**	Micrometre (micron)	µm	—	—	Delicate fabrics
		Millimetre	mm	—	—	Other fabrics, carpets, felts
4)	***Linear density**	Tex	tex	—	—	Yarns
		Millitex	mtex	—	—	Fibres
		Decitex	dtex	—	—	Filament and filament yarns
		Kilotex	ktex	—	—	Slivers, ropes and cordages
5)	**Diameter**	Micrometre (micron)	µm	—	—	Fibres
		Millimetre	mm	—	—	Yarns, ropes, cordages
6)	**Circumference**	Millimetre	mm	—	—	Ropes, cordages

*For conversion of values in traditional counts to the tex and vice versa, reference to IS : 3689-1966 'Conversion factors and conversion tables for yarn counts' shall be made.

(*Continued*)

TABLE 4 RECOMMENDED SI UNITS FOR TEXTILES — *Contd*

Sl No.	Characteristic	SI Unit		Metric Unit		Application
		Unit	Abbreviation	Unit	Abbreviation	
(1)	(2)	(3)	(4)	(5)	(6)	(7)
7)	Threads in cloth :					
	a) Length	Number per centimetre	ends/cm	—	—	Woven fabrics (as appropriate)
		Number per decimetre	ends/dm	—	—	
	b) Width	Number per centimetre	picks/cm	—	—	
		Number per decimetre	picks/dm	—	—	
8)	Warp threads in loom	Number per centimetre	ends/cm	—	—	Reeds
9)	Stitches in cloth :					
	a) Length	Number per centimetre	courses/cm	—	—	Knitted fabrics (as appropriate)
		Number per decimetre	courses/dm	—	—	
	b) Width	Number per centimetre	wales/cm	—	—	
		Number per decimetre	wales/dm	—	—	
10)	Stitch length	Millimetre	mm	—	—	Knitted fabrics Made-up fabrics
11)	Mass per unit area	Grams per square metre	g/m²	—	—	Fabrics
12)	Mass per unit length	Grams per metre	g/m	—	—	Fabrics
13)	Twist	Turns per centimetre	turns/cm	—	—	Yarns, ropes (as appropriate)
		Turns per metre	turns/m	—	—	

14)	Test or gauge length	Millimetre, centimetre	mm, cm	—	—	Fibres, yarns and fabric specimens (as appropriate)
15)	Breaking load	Millinewton	mN	grams force	gf	Fibres, delicate yarns (skeins or individual)
		Newton	N	kilogram force	kgf	Strong yarns (individua or skeins), ropes and cordages, fabrics
16)	Breaking length	kilometre	km	—	—	Yarns
17)	Tenacity	Millinewton per tex	mN tex	grams force per tex	gf/tex	Fibres, yarns (individual or skeins)
18)	Twist factor or twist multiplier	Turns per centimetre × square root of tex	turns/cm × $\sqrt{\text{tex}}$	—	—	Yarns (as appropriate)
		Turns per metre × square root of tex	turns m × $\sqrt{\text{tex}}$	—	—	
19)	Bursting strength	Newton per square centimetre	N/cm²	kilogram force per square centimetre	kgf/cm²	Fabrics
20)	Tear strength	Millinewton Newton	mN N	grams force, kilogram force	gf, kgf	Fabrics (as appropriate)
21)	Pile height	Millimetre	mm	—	—	Carpets
22)	Pile density	Mass of pile yarn in grams per square metre per millimetre pile height	g/m²/mm pile height	—	—	Pile carpet
23)	Elastic modulus	Millinewton per tex per unit deformation	mN/tex/unit deformation	grams force per tex per unit deformation	gf/tex/unit deformation	Fibres, yarns, strands

NOTE — Where more than one unit have been given for one characteristic, any of the units may be used appropriate.

BUREAU OF INDIAN STANDARDS

Headquarters:

Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002

Telephones: 331 01 31, 331 13 75 Telegrams: Manaksanstha (Common to all Offices)

Regional Offices:	*Telephone*
Central : Manak Bhavan, 9 Bahadur Shah Zafar Marg, NEW DELHI 110002	331 01 31 331 13 75
*Eastern : 1/14 C. I. T. Scheme VII M, V. I. P. Road, Maniktola, CALCUTTA 700054	36 24 99
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Southern : C. I. T. Campus, MADRAS 600113	41 24 42 41 25 19 41 29 16
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Inspection Offices (With Sale Point):

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*Sales Office in Calcutta is at 5 Chowringhee Approach, P. O. Princep Street, Calcutta 700072 — 27 68 00

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‡Sales Office in Bangalore is at Unity Building, Narasimharaja Square, Bangalore 560002 — 22 36 71

Reprography Unit, BIS, New Delhi, India

AMENDMENT NO. 1 NOVEMBER 2005
TO
IS 2818 (PART 6) : 1977 SPECIFICATION FOR INDIAN HESSIAN
PART 6 245 g/m^2 AT 16 PERCENT CONTRACT REGAIN

[*Page* 5, *Table* 2, *Sl No.* (ix), *col* 3] — Substitute '3' *for* '6'.

(*Page* 5, *Note* 4) — Substitute the following for the existing note:

'NOTE 4 — The specified oil content value of 3 percent corresponds to an oil content of about 2.6 percent when determined on dry deoiled material plus 16 percent moisture regain'.

(TX 03)

Reprography Unit, BIS, New Delhi, India